WHAT IS CLAIMED IS:

1. A method for detecting in a sample a non-viral organism belonging to a group, the group consisting of at least one, but less than all non-viral organisms, the method comprising the steps of:

(i) contacting a sample comprising SRP RNA with a nucleic acid probe, wherein the nucleic acid probe is substantially complementary to a subsequence of SRP RNA from the group of non-viral organisms;

(ii) incubating the sample comprising SRP RNA and the nucleic acid probe under hybridization conditions such that the nucleic acid probe hybridizes to SRP RNA from the group of non-viral organisms but does not detectably hybridize to SRP RNA from other non-viral organisms that do not belong to the group; and,

(iii) detecting hybridization of the nucleic acid probe to SRP RNA.

2. The method of claim 1, wherein the nucleic acid probe comprises a detectable moiety.

3. The method of claim 1, wherein the SRP RNA comprises a detectable moiety.

4. The method of claim 1, wherein the step of contacting further comprises the use of one or more additional nucleic acid probes that are substantially complementary to a subsequence of SRP RNA from the non-viral organism and have the ability to hybridize under stringent conditions to the SRP RNA from the non-viral organism.

5. The method of claim 4, wherein one of the nucleic acid probes comprises a detectable moiety.

6. The method of claim 1, wherein the nucleic acid probe is about 8 to about 50 nucleotides in length.

7. The method of claim 1, wherein the nucleic acid probe is about 15 to about 25 nucleotides in length.

8. The method of claim 1, wherein the nucleic acid probe is selected from the group consisting of DNA, PNA, and 2'-O-methyl RNA.

9. The method of claim 1, wherein the nucleic acid probe is a PNA.

10. The method of claim 1, wherein the nucleic acid probe is perfectly complementary to the subsequence of SRP RNA.

11. The method of claim 1, wherein the SRP RNA is 4.5S RNA.

12. The method of claim 1, wherein the sample is from a human.

13. The method of claim 1, wherein the non-viral organism belonging to the group is a fungus.

14. The method of claim 13, wherein the fungus is selected from the group consisting of *Candida* sp., *Cryptococcus* sp., *Aspergillus* sp., *Histoplasma* sp., and *Microsporum* sp.

15. The method of claim 1, wherein the non-viral organism belonging to the group is a protozoan.

16. The method of claim 15, wherein the protozoan is selected from the group consisting of *Pneumocystis* sp., *Toxoplasma* sp., *Cryptosporidium* sp., *Giardia* sp., *Leshmania* sp., *Trypanosoma* sp., *Plasmodium* sp., *Acanthamoeba* sp., and *Entamoeba* sp.

17. The method of claim 1, wherein the non-viral organism belonging to the group is a bacterium.

18. The method of claim 17, wherein the bacterium is selected from the group consisting of *Propionibacterium* sp., *Klebsiella* sp., *Enterobacter* sp., *Serratia* sp., *Salmonella* sp., *Legionella* sp., *Pseudomonas* sp., *Haemophilus* sp., *Escherichia* sp.,

Mycoplasma sp., *Micrococcus* sp., *Listeria* sp., *Bacillus* sp., *Staphylococcus* sp., *Streptococcus* sp., *Clostridia* sp., *Neisseria* sp., *Helicobacter* sp., *Vibrio* sp., *Campylobacter* sp., *Bordetella* sp., *Ureaplasma* sp., *Treponema* sp., *Leptospira* sp., *Borrelia* sp., *Actinomyces* sp., *Nocardia* sp., *Chlamydia* sp., *Rickettsia* sp., *Coxiella* sp., *Ehrilichia* sp., *Rochalimaea* sp., *Brucella* sp., *Yersinia* sp., *Fracisella* sp., and *Pasteurella* sp.

19. The method of claim 1, wherein the nucleic acid probe has a nucleotide sequence selected from the group consisting of: GCTGCTTCCTTCCGGACCTGAC (SEQ ID NO:2); GCTGCTTCCTTCCGGACCTGA (SEQ ID NO:3); GGCACACGCGTCATCTGC (SEQ ID NO:9); GCTGCTTCCTTC (SEQ ID NO:4); GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8); GCTGCTTCCTTCCGGACCTGACCTGGTAAA (SEQ ID NO:11); GCTGCTTCCTTCCG (SEQ ID NO:5); GACCTGACCTGGTA (SEQ ID NO:6); GCTGCTTCCGTC (SEQ ID NO:14); CGGACCTGACCTG (SEQ ID NO:15); AGGACCUGACAUG (SEQ ID NO:16); CGGACCUGACCAG (SEQ ID NO:17); CGGACCUGACAAG (SEQ ID NO:18); and CGGAUCUGACACG (SEQ ID NO:19).

20. A method for detecting in a sample a non-viral organism belonging to a group, the group consisting of at least one, but less than all of non-viral organisms, the method comprising the steps of:

(i) contacting a sample comprising SRP RNA with a nucleic acid probe, wherein the nucleic acid probe is substantially complementary to a subsequence of SRP RNA from the group of non-viral organisms and wherein the nucleic acid probe has the ability to hybridize under stringent conditions to the SRP RNA from the group of non-viral organisms;

(ii) incubating the sample comprising SRP RNA and the nucleic acid probe under stringent hybridization conditions to form duplex SRP RNA from the group of non-viral organisms;

(iii) contacting the duplex SRP RNA with a gel-immobilized nucleic acid probe, wherein the gel-immobilized nucleic acid probe is substantially complementary to a subsequence of the duplex SRP RNA from the group of non-viral organisms;

(iv) incubating the duplex SRP RNA and the gel-immobilized nucleic acid probe under hybridization conditions such that the gel-immobilized nucleic acid probe hybridizes to a subsequence of the duplex SRP RNA from the group of organisms, but does not detectably hybridize to SRP RNA from other non-viral organisms that do not belong to the group; and,

(v) detecting hybridization of the gel-immobilized probe to duplex SRP RNA.

21. The method of claim 20, wherein step (iv) further comprises electrophoresing the sample comprising duplex SRP RNA through a gel.

22. The method of claim 20, wherein the nucleic acid probe comprises a detectable moiety.

23. The method of claim 20, wherein the SRP RNA comprises a detectable moiety.

24. The method of claim 20, wherein the step of contacting with a nucleic acid probe further comprises the use of one or more additional nucleic acid probes.

25. The method of claim 24, wherein one of the nucleic acid probes comprises a detectable moiety.

26. The method of claim 20, wherein the nucleic acid probe is an adaptor probe comprising a subsequence that hybridizes under stringent conditions to the gel-immobilized probe.

27. The method of claim 20, wherein the gel-immobilized nucleic acid probe and the nucleic acid probe each comprise a subsequence that is substantially complementary to the same SRP RNA subsequence.

28. The method of claim 20, wherein the gel-immobilized nucleic acid probe and the nucleic acid probe are about 8 to about 50 nucleotides in length.

29. The method of claim 20, wherein the nucleic acid probe is about 15 to about 25 nucleotides in length.

30. The method of claim 20, wherein the gel-immobilized nucleic acid probe and the nucleic acid probe are selected from the group consisting of DNA, PNA, and 2-O-methyl RNA.

31. The method of claim 20, wherein the gel-immobilized nucleic acid probe and the nucleic acid probe are PNA.

32. The method of claim 20, wherein the gel-immobilized nucleic acid probe is perfectly complementary to the subsequence of SRP RNA.

33. The method of claim 20, wherein the SRP RNA is 4.5S RNA.

34. The method of claim 20, wherein the sample is from a human.

35. The method of claim 20, wherein the non-viral organism belonging to the group is a fungus.

36. The method of claim 35, wherein the fungus is selected from the group consisting of *Candida* sp., *Cryptococcus* sp., *Aspergillus* sp., *Histoplasma* sp., and *Microsporum* sp.

37. The method of claim 20, wherein the non-viral organism belonging to the group is a protozoan.

38. The method of claim 37, wherein the protozoan is selected from the group consisting of *Pneumocystis* sp., *Toxoplasma* sp., *Cryptosporidium* sp., *Giardia* sp., *Leshmania* sp., *Trypanosoma* sp., *Plasmodium* sp., *Acanthamoeba* sp., and *Entamoeba* sp.

39. The method of claim 20, wherein the non-viral organism belonging to the group is a bacterium.

40. The method of claim 39, wherein the bacterium is selected from the group consisting of *Propionibacterium* sp., *Klebsiella* sp., *Enterobacter* sp., *Serratia* sp., *Salmonella* sp., *Legionella* sp., *Pseudomonas* sp., *Haemophilus* sp., *Escherichia* sp., *Mycoplasma* sp., *Micrococcus* sp., *Listeria* sp., *Bacillus* sp., *Staphylococcus* sp., *Streptococcus* sp., *Clostridia* sp., *Neisseria* sp., *Helicobacter* sp., *Vibrio* sp., *Campylobacter* sp., *Bordetella* sp., *Ureaplasma* sp., *Treponema* sp., *Leptospira* sp., *Borrelia* sp., *Actinomyces* sp., *Nocardia* sp., *Chlamydia* sp., *Rickettsia* sp., *Coxiella* sp., *Ehrilichia* sp., *Rochalimaea* sp., *Brucella* sp., *Yersinia* sp., *Fracisella* sp., and *Pasteurella* sp.

41. The method of claim 20, wherein the gel-immobilized nucleic acid probe has the nucleotide sequence selected from the group consisting of: GCTGCTTCCTTCCGGACCTGAC (SEQ ID NO:2); GCTGCTTCCTTCCGGACCTGA (SEQ ID NO:3); GGCACACGCGTCATCTGC (SEQ ID NO:9); GCTGCTTCCTTC (SEQ ID NO:4); GCTGCTTCCTTCCGGACCTGACCTGGTAAA (SEQ ID NO:11); GCTGCTTCCTTCCG (SEQ ID NO:5); GACCTGACCTGGTA (SEQ ID NO:6); GCTGCTTCCGTC (SEQ ID NO:14); CGGACCTGACCTG (SEQ ID NO:15); AGGACCUGACAUG (SEQ ID NO:16); CGGACCUGACCAG (SEQ ID NO:17); CGGACCUGACAAG (SEQ ID NO:18); and CGGAUCUGACACG (SEQ ID NO:19).

42. The method of claim 20, wherein the nucleic acid probe has a nucleotide sequence selected from the group consisting of: GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); and GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8).

43. The method of claim 26, wherein the adaptor has a nucleotide sequence selected from the group consisting of: GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); and GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8).

44. A kit for detecting in a sample a non-viral organism belonging to a group, the group consisting of at least one, but less than all non-viral organisms, said kit comprising a container comprising a nucleic acid probe that is substantially complementary

to a subsequence of SRP RNA from the group of non-viral organisms, wherein the nucleic acid probe has the ability to hybridize to SRP RNA from the group of non-viral organisms, but does not detectably hybridize to SRP RNA from other non-viral organisms that do not belong to the group.

45. The kit of claim 45, wherein the nucleic acid probe comprises a detectable moiety.

46. The kit of claim 45, further comprising one or more additional nucleic acid probes that are substantially complementary to a subsequence of SRP RNA from the non-viral organism and have the ability to hybridize under stringent conditions to the SRP RNA from the non-viral organism.

47. The kit of claim 45, wherein one of the nucleic acid probes comprises a detectable moiety.

48. The kit of claim 45, wherein the nucleic acid probe is an adaptor probe.

49. The kit of claim 45, wherein the nucleic acid probe is a gel-immobilized nucleic acid probe.

50. The kit of claim 45, further comprising a gel-immobilized nucleic acid probe, wherein the gel-immobilized probe is substantially complementary to a subsequence of the adaptor probe and hybridizes under stringent conditions to the adaptor probe.